

Abstract

Chemical vapor deposition (CVD) is enhanced by compensating for a depleted gas concentration zone in a CVD reactor. According to an example embodiment of the present invention, a chemical-vapor deposition (CVD) gas injector is adapted to supply
5 gas to a CVD chamber in a manner that enhances the properties of deposited films. The injector has a gas inlet coupled to a gas source and supplies gas from the source to the CVD system via at least one gas outlet. The injector is adapted to deliver gas in a manner that sufficiently maintains uniform supply of the gas in a zone of the CVD system that would exhibit a depleted gas supply absent the injector. The uniform gas
10 supply improves the CVD process in various manners, including making possible the deposition of films having uniform properties, such as reflectivity, extinction coefficient, thickness and refractive index.